News release

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Climate change and nuclear power

In a specially commissioned study, the Met Office has produced a report looking at the effects of climate change and sea level rises at British Energy's nuclear sites across the UK.

British Energy (BE), the UK's largest generator of electricity, has asked the Met Office to make an assessment of environmental change and what impact that may have on its sites.

David Norfolk, from BE's strategy team, said: "We understand the importance of climate change, and we're committed to environmental responsibility. That is why this study is important in keeping our knowledge of the potential impacts on our sites fully up to date.

"Although considerable rises in sea level are predicted by the end of the century in the most severe scenario, a mix of measures including coastal defences, flood protection and plant design would ensure our sites are well–protected from the effects of sea level rises."

The Met Office study used its regional climate models and builds on previous work completed in 2004 by the Met Office for BE for a smaller range of sites.

The findings are based on a range of scenarios, including one with continuing high CO2 emissions. In this case, by 2100 daily average summer temperatures are predicted to be up to some 5-6 °C higher than now; precipitation up to 30-35% higher in winter but 40-60% lower in summer, and winds up to 10% stronger in winter.

Using the same scenario, surge heights are predicted to increase by up to 1.7 metres at Sizewell, the most affected site, and 0.9 metres at Hinkley Point, the least affected.

Although this is the first stage of the study (in the second stage, an engineering consultancy are looking at the effects of the climate changes on the coast), the preliminary picture is clear. These predictions represent authoritative base data, updating previous work and forming an important part of British Energy's characterisation of its sites.

The data will be used in hazards studies for BE's existing nuclear stations on these sites.

David Norfolk added: "A strategy on sea defences for all of our nuclear power stations was developed as part of the original safety cases for operating the stations. The current defences in place are monitored on a regular basis to ensure they continue to offer adequate protection.

"We work in consultation with a number of agencies with an interest in sea defences across the UK to develop a long-term strategy for these sites that would take us forward into the decommissioning phase, as well as into potential new build."

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